

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended): An arrangement apparatus for session control in a wireless communication network, comprising:

means for detecting requested application-specific packets in a packet stream;

means for blocking application-specific packets in the packet stream that are not the requested application-specific packets; and

means for activating, in response to the means for detecting the requested application-specific packets, a plurality of packet sessions with application-specific QoS parameters, without requiring explicit cooperation of application software.

2. (Currently Amended): The arrangement apparatus of claim 1 further comprising means for deactivating at least one of the plurality of packet sessions.

3. (Currently Amended): The arrangement apparatus of claim 1 or 2 wherein the wireless communication network comprises a UMTS radio access network.

4. (Currently Amended): The arrangement apparatus of claim 1, ~~2 or 3~~ wherein the packet sessions comprise Packet Data Protocol (PDP) contexts.

5. (Currently Amended): The arrangement apparatus of ~~any one of claim 1 claims 1-4~~ wherein the means for detecting comprises stateful inspection means, and the arrangement apparatus further comprises session manager means and packet filter means responsive to the stateful inspection means.

6. (Currently Amended): The arrangement apparatus of ~~any one of claim 1 claims 1-5~~, wherein the means for detecting is arranged to inspect uplink packet flows to detect application-specific packet flows, via application-specific control messages.

7. (Currently Amended): The arrangement apparatus of any one of claim 1 claims 1-6, wherein the means for detecting is arranged to inspect downlink packet flows to detect application-specific packet flows, via application-specific control messages.

8. (Currently Amended): The arrangement apparatus of any one of claim 1 claims 1-7, wherein the packet sessions comprise conversational class PDP contexts.

9. (Currently Amended): The arrangement apparatus of claim 8, wherein the conversational class PDP contexts are arranged to carry Voice over IP (VOIP) traffic.

10. (Currently Amended): The arrangement apparatus of claim 8, wherein the conversational class PDP contexts are arranged to carry Video over IP traffic.

11. (Currently Amended): The arrangement apparatus of claim 9 or 10 wherein the traffic is based on originated calls controlled by Session Initiation Protocol (SIP).

12. (Currently Amended): The arrangement apparatus of claim 9 or 10 wherein the traffic is based on originated calls controlled by H.323 protocol.

13. (Currently Amended): The arrangement apparatus of any one of claim 1 claims 1-7, wherein the packet sessions comprise streaming class PDP contexts.

14. (Currently Amended): The arrangement apparatus of claim 13, wherein the streaming class PDP contexts are arranged to carry streaming media traffic controlled by Real Time Streaming Protocol.

15. (Currently Amended): The arrangement apparatus of any one of claim 1 claims 1-7, wherein the packet sessions comprise interactive class PDP contexts.

16. (Currently Amended): The arrangement apparatus of any one of claim 1 claims 1-7, wherein the packet sessions comprise background class PDP contexts.

17. (Currently Amended): The arrangement apparatus of claim 16, wherein the background class PDP contexts are arranged to carry Post Office Protocol-Version 3 (POP3) traffic.

18. (Currently Amended): The arrangement apparatus of claim 16, wherein the background class PDP contexts are arranged to carry Simple Mail Transfer Protocol (SMTP) traffic.

19. (Currently Amended): A method for session control in a wireless communication network, comprising:

detecting requested application-specific packets in a packet stream;

blocking application-specific packets in the packet stream that are not the requested application-specific packets; and

activating, in response to ~~the step of~~ detecting the requested application-specific packets, a plurality of packet sessions with application-specific QoS parameters, without requiring explicit cooperation of application software.

20. (Original): The method of claim 19 further comprising deactivating at least one of the plurality of packet sessions.

21. (Original): The method of claim 19 or 20 wherein the wireless communication network comprises a UMTS radio access network.

22. (Currently Amended): The method of claim 19, ~~20 or 21~~ wherein the packet sessions comprise Packet Data Protocol (PDP) contexts.

23. (Currently Amended): The method ~~of any one of claim 19 claims 19-22~~ wherein ~~the step of~~ detecting comprises detecting in a stateful inspector, and the method further comprises providing a session manager and a packet filter responsive to the stateful inspection means.

24. (Currently Amended): The method of ~~any one of claim 19 claims 19–23~~, wherein ~~the step of~~ detecting comprises inspecting uplink packet flows to detect application-specific packet flows, via application-specific control messages.

25. (Currently Amended): The method of ~~any one of claim 19 claims 19–23~~, wherein ~~the step of~~ detecting comprises inspecting downlink packet flows to detect application-specific packet flows, via application-specific control messages.

26. (Currently Amended): The method of ~~any one of claim 19 claims 19–25~~, wherein the packet sessions comprise conversational class PDP contexts.

27. (Original): The method of claim 26, wherein the conversational class PDP contexts carry Voice over IP (VOIP) traffic.

28. (Original): The method of claim 26, wherein the conversational class PDP contexts carry Video over IP traffic.

29. (Original): The method of claim 27 or 28 wherein the traffic is based on originated calls controlled by Session Initiation Protocol (SIP).

30. (Original): The method of claim 27 or 28 wherein the traffic is based on originated calls controlled by H.323 protocol.

31. (Currently Amended): The method of ~~any one of claim 19 claims 19–25~~, wherein the packet sessions comprise streaming class PDP contexts.

32. (Original): The method of claim 31, wherein the streaming class PDP contexts carry streaming media traffic controlled by Real Time Streaming Protocol.

33. (Currently Amended): The method of ~~any one of claim 19 claims 19–25~~, wherein the packet sessions comprise interactive class PDP contexts.

34. (Currently Amended): The method of ~~any one of claim 19~~ ~~claims 19-25~~, wherein the packet sessions comprise background class PDP contexts.

35. (Original): The method of claim 34, wherein the background class PDP contexts carry Post Office Protocol—Version 3 (POP3) traffic.

36. (Original): The method of claim 34, wherein the background class PDP contexts carry Simple Mail Transfer Protocol (SMTP) traffic.

37. (Currently Amended): The method of ~~any one of claim 19~~ ~~claims 19-36~~, wherein the method is performed in User equipment (UE).

38. (Currently Amended): User equipment (UE) for use in a UTRA system, the user equipment comprising the ~~arrangement apparatus~~ of any one of ~~claims 1-18~~ ~~claims 1-2, 4-10, or 13-18~~.

39. (Currently Amended): An integrated circuit comprising the ~~arrangement apparatus~~ of any one of ~~claims 1-18~~ ~~claims 1-2, 4-10, or 13-18~~.

40. (Currently Amended): A computer program element comprising computer program means for the method of any one of ~~claims 19-37~~ ~~claims 19-20, 22-28, or 31-37..~~

41. (New): The apparatus of claim 5, wherein detecting in a stateful inspector comprises inspecting packets, implying a state of an application-specific packet session via control packets and allowing packets for said session to flow through the firewall if said session originated from inside the firewall or otherwise, blocking said session otherwise.

42. (New): The method of claim 23, wherein detecting in a stateful inspector comprises inspecting packets, implying a state of an application-specific packet session via control packets and allowing packets for said session to flow through the

firewall if said session originated from inside the firewall or otherwise, blocking said session otherwise.

43. (New): The apparatus of claim 2, wherein the packet sessions comprise Packet Data Protocol (PDP) contexts.

44. (New): The apparatus of claim 3, wherein the packet sessions comprise Packet Data Protocol (PDP) contexts.

45. (New): The apparatus of claim 2, wherein the means for detecting comprises stateful inspection means, and the apparatus further comprises session manager means and packet filter means responsive to the stateful inspection means.

46. (New): The apparatus of claim 3, wherein the means for detecting comprises stateful inspection means, and the apparatus further comprises session manager means and packet filter means responsive to the stateful inspection means.

47. (New): The apparatus of claim 4, wherein the means for detecting comprises stateful inspection means, and the apparatus further comprises session manager means and packet filter means responsive to the stateful inspection means.

48. (New): The apparatus of claim 5, wherein the means for detecting is arranged to inspect uplink packet flows to detect application-specific packet flows, via application-specific control messages.

49. (New): The apparatus of claim 5, wherein the means for detecting is arranged to inspect downlink packet flows to detect application-specific packet flows, via application-specific control messages.

50. (New): The apparatus of claim 2, wherein the packet sessions comprise conversational class PDP contexts.

51. (New): The apparatus of claim 4, wherein the packet sessions comprise conversational class PDP contexts.

52. (New): The apparatus of claim 2, wherein the packet sessions comprise streaming class PDP contexts.

53. (New): The apparatus of claim 4, wherein the packet sessions comprise streaming class PDP contexts.

54. (New): The apparatus of claim 2, wherein the packet sessions comprise interactive class PDP contexts.

55. (New): The apparatus of claim 4, wherein the packet sessions comprise interactive class PDP contexts.

56. (New): The apparatus of claim 2, wherein the packet sessions comprise background class PDP contexts.

57. (New): The apparatus of claim 4, wherein the packet sessions comprise background class PDP contexts.

58. (New): The method of claim 20, wherein the packet sessions comprise Packet Data Protocol (PDP) contexts.

59. (New): The method of claim 23, wherein detecting comprises inspecting uplink packet flows to detect application-specific packet flows, via application-specific control messages.

60. (New): The method of claim 23, wherein detecting comprises inspecting downlink packet flows to detect application-specific packet flows, via application-specific control messages.

61. (New): The method of claim 20, wherein the packet sessions comprise conversational class PDP contexts.

62. (New): The method of claim 22, wherein the packet sessions comprise conversational class PDP contexts.

63. (New): The method of claim 20, wherein the packet sessions comprise streaming class PDP contexts.

64. (New): The method of claim 22, wherein the packet sessions comprise streaming class PDP contexts.

65. (New): The method of claim 20, wherein the packet sessions comprise interactive class PDP contexts

66. (New): The method of claim 22, wherein the packet sessions comprise interactive class PDP contexts

67. (New): The method of claim 20, wherein the packet sessions comprise background class PDP contexts.

68. (New): The method of claim 22, wherein the packet sessions comprise background class PDP contexts.

69. (New): The method of claim 20, wherein the method is performed in User equipment (UE).

70. (New): The method of claim 21, wherein the method is performed in User equipment (UE).

71. (New): The method of claim 22, wherein the method is performed in User equipment (UE).

72. (New): The method of claim 23, wherein the method is performed in User equipment (UE).

73. (New): The method of claim 24, wherein the method is performed in User equipment (UE).

74. (New): The method of claim 25, wherein the method is performed in User equipment (UE).